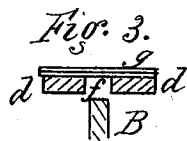
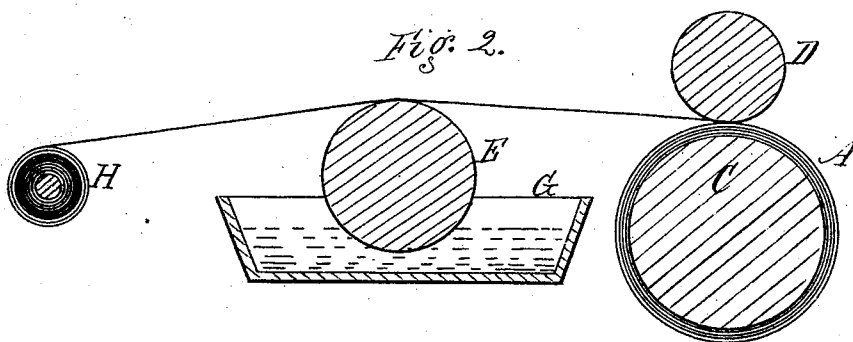
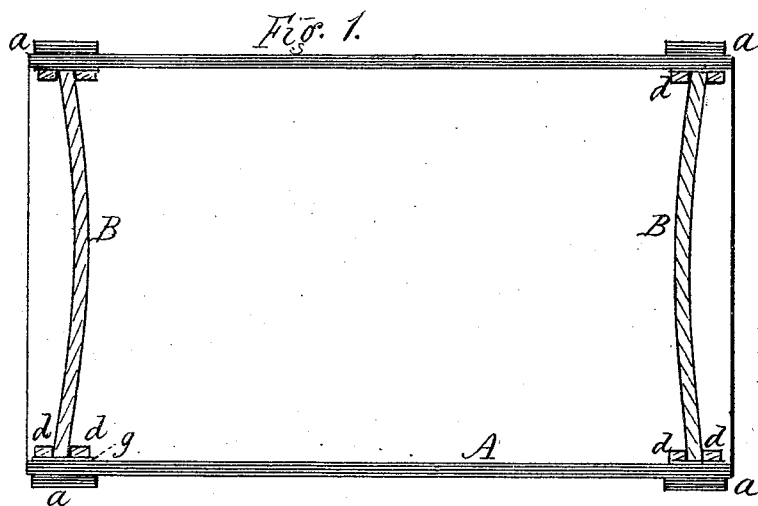


E. M. SLAYTON.

Paper-Boxes.

No. 144,800.

Patented Nov. 18, 1873.



Witnesses.

James L. Norris.
A. H. Norris

Inventor.

Edwin M. Slayton,
per R. F. Osgood,
atty

UNITED STATES PATENT OFFICE.

EDWIN M. SLAYTON, OF CONQUEST, NEW YORK.

IMPROVEMENT IN PAPER BOXES.

Specification forming part of Letters Patent No. **144,800**, dated November 18, 1873; application filed October 17, 1873.

To all whom it may concern:

Be it known that I, EDWIN M. SLAYTON, of Conquest, in the county of Cayuga and State of New York, have invented a certain new and useful Improvement in Paper Boxes; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention consists of a seamless package made of paper, straw, or mill board wound in a continuous length upon a form or mandrel, and built up in paste, size, or cement, to form a solid body, and provided with hoops formed in the same manner outside, and with hoops and heads inside, as hereinafter described.

In the drawings, Figure 1 is a longitudinal section of the package complete. Fig. 2 is a diagram showing one form of apparatus for winding the body of the package. Fig. 3 is a view of one of the interior hoops for holding the head.

This package is made of paper, straw, or mill board, or some other fibrous fabric that will easily wind. The body A is made by winding the paper or other material upon a form or mandrel in a continuous length, one surface of the paper being covered with paste, sizing, or cement, as it passes to the mandrel, so as to build up the body in solid form. The mandrel may be made of any desired shape in cross-section—cylindrical, square, triangular, octagonal, or other form—and the body, when wound, will be of the same shape. After the body is completed, hoops *a a*, of paper or other material, may be wound in the same manner outside the body, in proper positions, to give additional strength.

The body thus formed may be cut into sections when made in long lengths, said sections each forming a package which is perfectly seamless, the length forming the same having been wound over and over. Heads or covers may then be employed at one or both ends to complete the package. I prefer the heads B B made from straw, mill or junk board; but, if desired, they may be made from sheet metal, wood, or other material. They are simply disks of concavo-convex form, as shown in Fig. 1, and may either stand inward or outward, but preferably inward, as in that case they resist the weight of the contents, and spring outward and tighten at the periphery against the body.

In order to secure the edges, I employ interior hoops *d d*, which may be either made

separate from each other, leaving a groove, *f*, between for the entrance of the edge of the disk, or they may be combined in one by means of an overlying wrapper, *g*, of paper, but which leaves the same groove, as shown in Fig. 3. These hoops are sprung into the interior of the body at the ends, and are secured by nails, tacks, glue, or in some equivalent manner.

These seamless packages may be made water-proof, and colored, stained, or otherwise prepared with a sizing or wash of any suitable kind; and they may be made either plain or embellished, as may be desired. To produce the embellished surface, the pressing-roller, which rests over the mandrel, may be corrugated or cut with any suitable figuring; or a flexible wire or other apron may be rolled between the mandrel and pressing-roller upon the body A when formed.

I do not wish to confine myself to any precise arrangement of machinery for forming the body A. A convenient form is shown in Fig. 2, in which C is the mandrel; D, the pressing-roller. E is a pasting-cylinder, resting in a tank, G; and H is the roll of paper or other material from which the body is formed. The paper or other material passes over the pasting-cylinder, which imparts the sizing before the winding and pressing operation takes place.

By the plan before described, packages of any desired size and shape, and adapted to many uses, may be easily and cheaply made. Being seamless and built up in a body of cement, they are stronger, smoother, and present a better appearance than any others with which I am acquainted, and are far superior to those having the edges joined.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The seamless package, herein described, consisting of the body A, exterior hoops *a a*, interior hoops or linings *d d*, and concavo-convex heads B B, as and for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

EDWIN M. SLAYTON.

Witnesses:

R. F. OSGOOD,
FRED. A. HATCH.